

Mechanical Aspire

Achievements in Sports, Projects, Industry, Research and Education

External Recognition



SAI TANUJ MUDADLA Represented COAI PANTHERS OF COIMBATORE .in TAMILNADU BADMINTON LEAGUE ..(TNBL). Also represented SSN Team in MepcoSchlenck College of Engineering and **won gold medal**.

D.SAMEERA KUMAR **won** the recently Held U-21 State Ranking Table Tennis tournament in August 2013



V.R.Balaji and A. Kali Avudaiappan of Second year mech, won third place in paper presentation contest at Mechshatraz 2K13 National Level technical symposium, held at Anjalai Ammal Mahalingam engineering college, Kovilvenni, for their paper on Renewable Energy.

Industry invitesfor Innovation Lecture



Dr.V.E.Annamalai was invited by the German MNC M/s Schwing Stetter, to introduce the concept of TRIZ- Innovative problem Solving to the top management. This opportunity was utilised for a plant visit. They have four large plants in Sriperumbudur itself. It would be a good exposure to students, if they visit all these four plants.

They make concrete mixing plants and ready mix concrete transporting vehicles- which we might have seen quite often on the roads. They have a well equipped Welding research facility. They have permitted students to visit and use their facilities.



Invited to review research paper

INTERNATIONAL JOURNAL
OF AUTOMOBILE
ENGINEERING (IJAUE)

(Referred Online Quarterly Journal)

ISSN xxxx xxxxx online and Print



Dr.D.AnanthaPadmanabhan was invited to review a research paper in The International Journal of Automobile Engineering

Our students on NDTV talk show

Watch our final year students in dialogue with the **CEO of Renault-Nissan – Mr. Carlos Ghosn** regarding **Frugal Innovation** . This was recorded on 16th July,2013 at IIT - Madras and telecast on NDTV channel . Available at the link:

<http://www.ndtv.com/video/player/ndtv-special-ndtv-profit/townhall-with-carlos-ghosn/284684>

Campus Update

SSN Trophy

Info to Alumni



Dr.P.Balaji
Physical Director

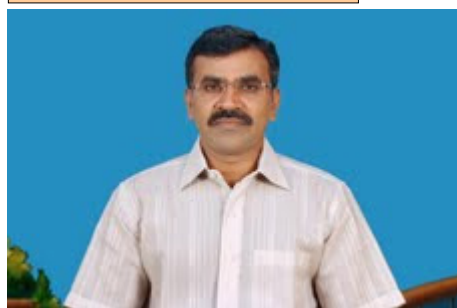
SSNI hosted the mega sports event "SSN Trophy", an all India inter collegiate basketball, table tennis, squash, tennis and chess tournament for men and women from 19th to 22nd Augt, 2013. This is the eleventh event in succession since 2003. The tournament was inaugurated by Olympic gold medalist, Shri. V.BASKARN (Arjuna awardee, Former Captain- Indian Hockey team) and more than a hundred top notch teams from every corner of the nation participated in the event. The winners and runners of various events are as follows:

S.N	Event	Category	Winners	Runners
1	Basket Ball	Men	Hindustan University, Chennai	Madras Christian College, Chennai
		Women	Krishna Menon Memorial Govt. Women's College, Kannur	SSN College of Engineering
2	Badminton	Men	PSG College of Arts & Science, Coimbatore	SSN College of Engineering
		Women	SSN College of Engineering	Stella Maris College, Chennai
3	Tennis	Men	SRM University, Chennai	SSN College of Engineering
		Women	SRM University, Chennai	IIT Madras, Chennai
4	Table Tennis	Men	KL University, Vijayawada	Loyola College (Arts & Science), Chennai
		Women	St. Joseph's College of Engineering, Chennai	Stella Maris College, Chennai
5	Chess	(Combined)	SSN College of Engineering	PSNA College of Engineering & Technology, Dindigul
6	Squash	Men	SSN College of Engineering	Rajalakshmi Engineering College

Department Update

Faculty Matters..

Submitted Synopsis



Mr.M.Selvaraj submitted PhD synopsis titled "Thermal model and study on weld formation for friction stir welding of an aluminium alloy" in Anna University, Chennai, on 12 th of August 2013.

Resigned...



Dr.N.Gnanasekaran has moved over to join NIT Suratkal, on 12th August. We wish him well in the new location. He will bring in Internship opportunities at NIT for our students.

Promoted...



Dr.K.Elangovan has been promoted as Professor. Wishing him well in his enhanced role..

Newly joined

Dr. D. Ananthapadmanaban, Associate Professor joined us on 15th July 2013.



He has completed his B.Tech (Metallurgical Engg.) from I.I.T, Madras in 1990. He did his M.Tech (Industrial Metallurgy) also from I.I.T, Madras in 1992. Later he did a Diploma in International Welding Technology from International Institute of Welding in 2010. He completed PhD In Manufacturing from Sathyabama University in 2012. He has published 20 papers in National and International Conferences and 13 papers in International and National Journals. He has been a reviewer for International Journal of Materials and Design. He has also been a member in the Editorial Board of International Journal of Control Engineering and Technology. His teaching experience spans for more than 19 years. Prior to joining SSN he was Assistant Professor in St. Joseph's College of Engineering, Chennai. He is a Member of the American Welding Society.

Dr. S. Rajkumar, Assistant Professor joined us on 1st August 2013.

He has completed his B.E in Mechanical Engineering from Bharadhidasan University in 1994 and M.E in Internal Combustion Engineering from College of Engineering, Guindy. He stood first in the University and received the University gold medal. He secured a high CGPA of 9.43 out of 10. He has very recently completed his Ph.D in Thermal Engineering from Indian Institute of Technology, Madras. Prior to joining Full time Ph.D, he was working as Senior Lecturer in Sri Muthukumaran Institute of Technology, Chennai for a period of 5 years. He also has few years of experience in industry as Senior Engineer. His Ph.D study was on "Phenomenological modeling of mixing, combustion and emission processes in multiple-injection common rail direct injection (CRDI) diesel engines". His areas of specialization include Thermodynamics, Thermal Engineering, Internal Combustion Engines and Alternate fuels. He has published 2 papers in International journals, 5 papers in International conferences and 2 papers in National conferences



Mr. M.Nalla Mohamed, Assistant Professor joined us on 1st August 2013.



He has completed his B.E in Mechanical Engineering from Arulmigu Kalasalingam College of Engineering affiliated with Madurai Kamaraj University in 1995 and M.E in CAD/CAM from Mepco Schlenk Engineering College, affiliated with Anna University, Chennai. He has recently submitted his Ph.D thesis in Industrial Safety Engineering from National Institute of Technology, Tiruchirappalli. Prior to joining us he was a Full time Ph.D scholar in National Institute of Technology, Tiruchirappalli. He has 12 years of teaching and research experience including 4 years of research experience in hazard evaluation and risk analysis of energetic materials in National Institute of Technology, Tiruchirappalli. His Ph.D study was on "Experimental investigation and numerical modeling of mechanical initiation of matchhead composition for different in-process contact materials" to avert fire accidents during processing of energetic compounds. His areas of specialization include CAD/CAM, Industrial Safety Engineering, Hazard Evaluation and Risk Analysis. He has published 5 technical papers in referred International journals, 1 technical paper in international conferences and 2 technical papers in national conferences.

Mr. Jayakishan Balagurunathan, Assistant Professor joined us on 21st August 2013.

He completed his B.E in Mechanical Engineering from University of Madras in 2004. He did his Master's Diploma in Mechanical Design and Management from Cadd Centre Training Services, Chennai in 2005. He completed Master of Science (MS) in Mechanical Engineering from University of Dayton, Ohio in 2011. He has registered for Ph.D in Anna University.

Prior to joining us he was a Full time Ph.D scholar in Anna University. His Industrial experience include a short period in Cummins, Inc., Columbus Technical Center, Columbus as Performance Development Engineer Intern from May 2008 to December 2008. Earlier he was also with Ashok Leyland Inc. as an Intern in the Research and Development Centre, Chennai. He was a Graduate Research Engineer with University of Dayton Research Institute, Von Ohain Fuels and Combustion Center, Dayton from May 2006 to March 2012.

His field of interest includes Supersonic Combustion, Chemical Kinetics and Sustainable Energy Development. He has also published a few papers in International journals.



Guest Lecture 1



Sreeram Visvanathan,
IBM Global, UAE

Sreeram Visvanathan is currently responsible for IBM's Business Consulting Services to the Public Sector across the Middle East, Egypt and Pakistan region. In his role, Sreeram deals with a wide range of clients from different industries including Government, Education, Health Care, Defence and Posts. Sreeram is responsible for the development of business plans and "go to market" strategies, for business development and as a project executive responsible for quality delivery of projects

Sreeram has worked with a number of organisations across Europe and the Middle East including the Nestle Group, Redland (a large UK-based construction company), Dubai Aluminium Company Ltd (DUBAL) and PricewaterhouseCoopers Consulting prior to joining IBM. Over the last five years, Sreeram worked as an advisor on e-Government-led transformation in the Public Sector, both at the federal and local government levels, across many countries in the region. Sreeram graduated with a B.Sc.(Hons) in Computer Science from Kingston University, Surrey, UK. He subsequently completed his Masters in Business Administration (MBA) from the University of Bradford.

He shared his views on "[What Corporate World expects from Graduates](#)". His main message is Develop the core skills of "[Listen, Analyse, Understand and Solve](#)". Your Confidence will be the major differentiator.

Embrace challenge / look for challenges.
Do not panic when having to face challenges.

Read and follow up on Companies of repute. What happens there could give you a clue to resolve problems in your place.

When facing interview, to be prepared is half the victory. Channelise your fear into constructive energy. Have a mock interview.

Do a research on the company and be positive. Ask questions relevant to the strategy. If prepared, there will be no fear. When there is no fear, you display confidence. If you are confident, the interviewers can understand that you can do what they want.

Understanding the transition

All along you have been working under cut throat competition. But [business world is both competitive and co-operative](#). You need to understand this transition.

For Promotions:

[You need to be pro-active.](#) You need to do what is told and also do what is not told. This is called [taking Initiative](#).

[Stay networked and have a mentor.](#) A mentor is one who says what is good for you- not one who tells you what you like to hear.

[Control your skill profile](#)-everyone has a T-profile. The base vertical represents your core skills and the horizontal represents what you are good at doing. By constantly managing and improving these two parts of your profile, you can be relevant to the present situation.

[Be aware of and manage your digital image](#)-this is what others may see from the net when they want to know about you.

[Have an interest in something and have an opinion.](#) Learn to work in a team environment. Learn to connect the dots- engineering and management.

[Develop Interpersonal and people skills.](#) World is full of opportunities. If someone can win then everyone can win.

Mature markets are stagnant. So, India with its immense population is the next opportunity.

Guest Lecture 2

Dr.M.Suriaynarayanan, Principal Scientist, CLRI, Chennai
Furious form of Chemistry-Let us not provoke it
Lecture on Safety
27.8.2013 for Third Year Mech A

Guest Lecture 3

Dr.S.P.Sivapirakasam, NIT, Trichy
Ergonomics in Industries, Safety Aspects
27.8.2013 for Third year Mech B

Research activity

Dr. N. Lakshmi Narasimhan Got a paper accepted for publication in the prestigious International Journal of Refrigeration.

Shasank S, Sriteja, Venkatesh Adithya S, Hari Krishna KL Published a paper entitled "Experimental analysis of vibration in a motorcycle footrest" in the International journal of Mechanical Engineering & Computer applications. ISSN 2320 6349, May - June 2013.

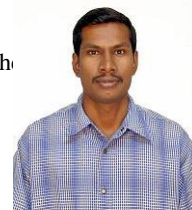
Guided by Dr.K.Babu, S.C.Vijayakumar and R.Lakshmi Shankar (VII Sem) attended and presented a paper on the international conference on advanced nano materials and emerging engineering technologies(ICANMEET-2013) which was held at sathyabama university during 24-26th July 2013.



G. Ramanathan (III Mech B) and Dr. M.S.Alphin presented a poster titled " Design and development of a device to harvest piezoelectricity generated out of mechanical vibrations and tire deformation in automobiles" in the International Conference on frontiers in Energy Environment, health and Material research . This conference was conducted by CSIR-Institute of Minerals and materials Technology, Bhubaneswar and Indian JSPS Alumni Asociation, Toyo University, Sponsor: Japan Society for Promotion of science (during 12th and 13th August , 2013.). This has been published in their Souvenir.



Dr. N. Lakshmi Narasimhan and Mr. R. Prakash, as faculty coordinators for the SAEINDIA club at SSNCE, Prepared our SAEINDIA SSNCE BAJA Team to participate in the Virtual Baja event held in Bangalore between 26th -28th July, 2013.



Mr. K.L. Harikrishna & Dr. K. S. Jayakumar Visited KCP Industries Ltd, Thiruvotiyur, Chennai with 37 students as a part of "Industrial Visit", on 20 August 2013.



Continuing education.....



B. Anand Ronald, K.S. Vijayekar and V.E. Annamalai attended a one day workshop on "Titanium Matrix Composites" Conducted at IIT Madras on 30 August 2013



The Mechanical team comprising of Dr. K. S. Vijayekar, Dr. K. Elangovan and Dr. K. Babu won this year's Antakshri event at the cultural conducted for Teacher's on Saturday, 17th August 2013.

Teachers' Culturals

Industry Interaction 1



On the second of August 2013, the company "Danieli" world's third largest supplier of equipment to steel industries, visited Mechanical Dept. to assess our capabilities to provide them suitable graduates for placement. We have convinced them of our capabilities and most probably they may come for placement from 2014 onwards.

Industry Interaction 2



Danfoss, a Danish MNC specialising in compressors, refrigeration and air conditioning products, visited us on 29th August, 2013 for initiating interactions. Faculty members from EEE and mech discussed with them on possible interactions.

As a first step, they have offered us free access to their e-learning modules (with plenty of animation) and invited us to visit their training Centre specialising in energy and Refrigeration /air conditioning. We will soon be visiting their facility to keep the interaction on. We have requested them to consider Faculty interns and to offer student projects.

They are setting up a new R&D facility at Oragadam and in the next two years need to recruit around 600 more engineers. That makes this interaction more meaningful.

Glider workshop – For II year Mechanical students – on 7th Aug 2013.

It's a well-known fact that flying machines have never ceased to amaze human beings and everyone has an inner desire to make things fly. Be it a school kid who makes paper rockets or a pilot who flies an aeroplane. We as passionate aero modelers of SSN Mechanical have helped in inspiring people's dreams of making gliders that are built for the sheer joy of enjoying the science of flight.

The third and final year students under the guidance of Dr. K.S. Vijay Sekar of the Mechanical Department took steps to organize the Aeromodeling workshop on 7th of August as a part of the BLP program. The workshop helped in uniting the 49 participants with passion under one roof. The participants gained an excellent exposure about the basics of aero modeling. The overwhelming response from the participants has encouraged us to conduct more workshops in future. We thank the student and faculty coordinators for their support and guidance.

Students Excel..

R.RAJKUMAR won second prize and V.V.S.S.PRANEETH won the third prize in Glider-Mania competition at the Tech Symposium of Saveetha College of Engineering. Both are students of Mech B, third year.



VaibhavPrakash and B.PraveenRamanujam (V – Sem) finished 3rd in Auto Quiz at TRAXION '13, a Technical Symposium of Automobile Engineering, Sri Venkateshwara College of Engineering, Sriperumbudur.

B.PraveenRamanujam, VaibhavPrakash, Vmalesh M, Veeraraghavan V and Srikanth (V – Sem) won 1st place in RC NITRO CAR RACING in TRAXION '13, a Technical Symposium of Automobile Engineering, Sri Venkateshwara College of Engineering, Sriperumbudur.



Vijayakumar S.C (VII Sem) is now in final 30 and just one step behind boarding a plane to San Francisco and participating in the grand finale of 'Your Big Year' conducted by World Merit an NGO based in UK.

This is an international competition in search of talented youngsters who have the courage and determination to be future leaders and change the world for the better in which almost 60000 youth from 220 countries participated.



Diwakar M (3rd Sem) , won First place in a quiz competition conducted by TJS Engineering College,Gumudipoondi. Won a cash prize of 1000 rupees for the same.



Saratkumar.B and Prasanna.M joined the team of Youth Red Cross(YRC), in organising blood donation camp in the campus .

In-Plant Training

V.Srinath and Vishnu.V of V - Sem Mech-B underwent in-plant training at Rail Coach Factory, Kapurthala, Punjab for one week. . They share their experience here.....



Rail Coach Factory (RCF) is the second coach manufacturing unit of [Indian Railways](#). It was established in 1986 and its foundation stone was laid by the then Prime Minister of India Mr. [Rajiv Gandhi](#). It is located 4–5 km away from Kapurthala, Punjab. It has manufactured more than 25,000 passenger [coaches](#) of 51 different types.



We, V.Srinath and Vishnu.V of III-Year underwent an in-plant training at RCF for one week. The training was about how a rail coach is manufactured from scrap, including the manufacturing process of LHB coaches. Training was given at the workshop where different manufacturing processes of rail coach parts are carried out. Various sections, such as sheet metal shop, shell shop, paint shop, furnishing shop, wheel shop, bogie shop were shown. Knowledge about the Planning department, and Design department were also gained through a visit.

The coaches of superfast trains, like Shatabdi, Rajdhani, Duronto express are manufactured in RCF. They are called LHB (Linke Holfmann Busch) coaches. The conventional coaches of regional express trains and passenger trains are also manufactured. Coaches are also manufactured for some of the African and South-East Asian countries.

The manufacturing process is broadly divided into two main categories, shell division and furnishing division. The sheet metal rolls are first brought to the sheet metal shop where they are straightened and cut according to the dimensions of end walls, side walls, and roof. A profile bending machine is used to slightly bend the roof part of the sheet metal. The separate sheet metals are welded in the shell shop by laser welding and tag welding. The finished product from the shell shop is subjected to blasting and then the painting process is done.

Furnishing division includes the attachment of electric appliances like lights, fans, seats, lavatories, etc. There is a separate shop for the manufacturing of bogies and wheels, where different manufacturing processes are carried out. The finished wheel is attached to the bogie which, after passing the break test, is attached to the coach.

Other than the manufacturing division, there is planning division and design division. Design division design the coach, appliances, assemblies, parts, etc. with suitable dimensions.

Now that a design for manufacturing is ready, a chronological process is required to efficiently plan and carry out different manufacturing processes. Planning division takes cares of that work. They assign specific tasks to each and every tasks, decides the number of labourers and amount of material required. Planning division also decides which parts should be manufactured in RCF, and which should be bought from outside.

Generally, mechanical engineering students at the under graduation level are either concentrating in aero modeling, or automobile sector. But there is a third option called Railways which hasn't been introduced properly to the students at a technical level.

There's a lot of scope and work for mechanical engineers in Railway industry, whether it is design, materials engineering, or manufacturing. Though India has the world's fourth largest railway network, still lot of work in Research and Development field has to be done. These are the things that we experienced and learnt during the training, and it was highly beneficial.

The main gain for us from the training is that now we have got an opportunity to introduce the vast field of railways to our fellow classmates and juniors, which we will be doing by IRIS presentations.

Industrial Visit

Our students in action at KCP accompanied by Dr.K.S.Jayakumar and Mr.K.L.Harikrishna...



THE KCP GROUP | Excellence Through Innovation

KCP Heavy Engineering is a pioneer in the manufacturing of a wide range of machinery for endearing industries that include sugar, cement, steel, alumina, hydro, thermal and wind power plants, fertilizer, chemicals, petrochemical, refinery, mineral processing, mining, space and defense industries.

A division of KCP Group the organization employs expertise in technology and infrastructural advancements to create machineries that are precise and are stronghold codes of performance and reliability there by providing futuristic, adaptive and cost-effective engineering solutions.



Alumni Placement after M.S.

Ajai Rao Ragothaman, first batch Alumni, after his M.S., has been placed. He reflects...



Things are good at my end.

I graduated from the University of Colorado - Boulder with a M.S Mechanical Engineering with "Energy and Environment" as my specialization this May.

Based on this specialization, I recently landed a job with a company named Hamon Deltak Inc, for the position of Applications Engineer at Minneapolis, Minnesota and I will be moving there this week to start work.



Hamon Deltak excels in the engineering and manufacture of technically-challenging combustion turbine heat recovery steam generators and waste heat boilers for process applications.

Hamon Deltak Inc, is a subsidiary of Hamon Corporation and is well known in the power generation industry for Designing and Manufacturing Heat recovery steam generators (HRSG) for combined cycle gas turbines and waste heat boilers. Here my role is that of a thermal engineer and I will be involved in a team that designs HRSGs and waste heat boilers based on industrial standards and customer requirements.

I am really excited about this opportunity since I believe that it will be a very starting point to learn and gain experience in the power generation industry. Lastly, I am really glad to note the different success stories of the department and also the current batch which I noticed through the department's web page.

Alumni reflections on Off-Campus Interview Process..

Karthikeyan Elangovan , Alumni of 2013 batch, managed a prized job of Visteon in an off-campus interview. Here he reflects on the interview and selection process....

Sir,

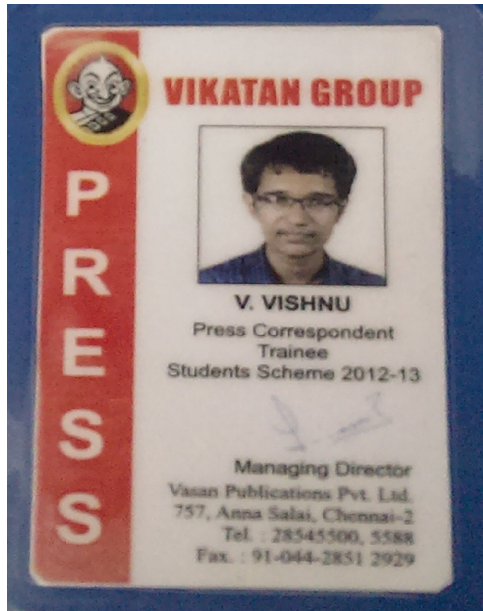
Greetings. I am glad to inform you that I got selected for the position of GET at Visteon India Ltd., Maraimalaiagar. I'm joining tomorrow (14-08-'13). I'll highlight the interesting and important things. I came to know about the off-campus recruitment through a classmate's father's friend and applied for the same. Some highlights for the benefit of Juniors...

- 100 people from all over India had sent their resumes to Visteon. They shortlisted 64 resumes. Even experienced guys and masters degree holders, and assistant professor were all shortlisted.
- 15 people were shortlisted based on their aptitude(tech + quants) as well as GD performance. Technical questions were from refrigeration, a/c, heat transfer, thermodynamics
- There were 3 rounds of discussions / interviews.
 - 1st - Equal importance to technical and personal questions (attended by 15 candidates)
 - 2nd - More importance to technical than personal (for me but other way round for some people) (attended by 6 candidates)
 - 3rd - Not much like an interview. They discussed terms and conditions. (attended by 2 candidates)
- The important part was making the dream come true - not talking about getting the job but its about making the interviewer ask me the exact questions which I wanted to be asked. That is what you have been teaching all through the industrial practices classes. I tried it in almost all the interviews. Finally I learned how to make them ask what I know - about the ISO system and 6 sigma. I had to showcase the technical knowledge and the industrial exposure.
- I think I swept it clean when they asked "Do you think whatever you learned is going to help you in the company - i.e. 6 sigma and ISO?". I made them understand that those things give me an edge over others. They were much impressed. Then they asked to explain a refrigeration cycle and I explained it clearly in simple terms and there was a question from Strength of materials.

- Then I talked about, how we used to have **classes and workshops for the industrial practices** and brought in things like innovation competition, visit to Delhi, and the presentation before the members of the PM's office and told them its in line with the policy adopted by the company to innovate.
- They were very much eager to know who was behind all these classes and workshops and I mentioned you. Also they checked if I was bluffing about the ISO system by asking simple questions which I answered with ease. They asked me whether I knew about the products made by them. I answered the question and they were impressed.
- The next interview was with a Korean Officer at a higher level of the management. He concentrated more on technical questions like - Refrigeration cycle, relative humidity, climate control systems in a car, temperature in a evaporator.
- Before the third interview they made us wait for 3 hours. Once inside, the HR asked me to tell two things which impressed me as well as two things which I didn't like since my arrival to their office on that day. I managed to answer the first one with the industrial practices followed by them and said none for the second question. He was happy with the answer and gave me the offer letter.
- The whole process took approximately 20 days and at last 2 candidates out of 100 were selected for the position of GET.

I would like to thank you and all the staff members for all the knowledge and support provided by you all through these years and especially to you **for the industrial exposure**. I would like to thank our class-in charge Mr.D. Ebenezer , the department placement coordinator Dr.N. Lakshmi Narasimhan, and the student representatives for their continuous support.

Trained as Press Correspondent in the coveted Vikatan Group



தமிழகத்திலிருந்து 3000 விண்ணப்பங்கள் , அதிலிருந்து 300 பேர், அதிலிருந்து 120, அதிலிருந்து 54 பேர் விகடன் மாணவப் பத்திரிகையாளர்களாகத் தேர்வு, **அதில் பத்து பேருக்கு சிறந்த மாணவப் பத்திரிகையாளர் (Distinction) விருது, அதில் நான் ஒருவன் ...** மகிழ்ச்சியில் வார்த்தைகள் அடிபடுகின்றன . ஒரு வருடக் கடின உழைப்பிற்குக் கிடைத்த பலன் இது. இதனால் எனக்கு இன்னும் பொறுப்பு கூடுவதை உணர்கிறேன் . என் வெற்றியை இதற்கும் மேல் வார்த்தைகளாக்காமல் இது எப்படி சாத்தியமாயிற்று , அந்த ஒரு வருடம் நான் கடந்து வந்த பாதை எப்படிப்பட்டது , சந்தித்த மனிதர்கள் , பெற்ற அனுபவங்கள் , போன்றவற்றைப் இங்கு பகிர்ந்துகொள்ள விரும்புகிறேன் .

Since this issue is overflowing with matter, and since Vishnu has one years info to share, we will listen to him in next issue, under Passion Parade.!